Claims

1. A method for detecting an analyte by a redox reaction and a fluorimetric determination, comprising contacting a sample containing the analyte with a detection reagent which contains a compound of the general formula Q – F as a fluorimetric redox indicator, wherein Q is a quencher group and F is a fluorophore group.

2. The method of claim 1, wherein Q is a group that can be reduced or oxidized by the redox reaction.

3. The method of claim 2, wherein Q is a reducible group.

4. The method of claim 3, wherein Q is selected from quinones, aromatic nitroso compounds, nitrosoanilines, nitrosobenzene derivatives, N-oxides, N-oxides in which the nitrogen atom of the N-oxide group is a component of an aromatic ring system, benzofurans, nitrosonaphthalimides, spin labels, tetrazolium compounds, phenazines, pyridines, anthraquinones, quinoxalines, pyrimidoquinones, phenylhydroxylamines, indanthrones, phenanthrenequinones and organic metal complexes

5. The method of claim 2, wherein Q is an oxidizable group.

6. The method of claim 5, wherein Q is selected from hydroquinones, phenylenediamines, dihydrophenazines, dihydronaphthoquinones, dihydroanthraquinones and organic metal complexes.

7. The method of claim 5, wherein F is group that cannot be reduced or oxidized by the redox reaction.

8. The method of claim 7, wherein F is selected from fluorescein, fluorescein derivatives, rhodamines, tetramethylrhodamines, coumarins, resorufins,

pyrenes, anthracenes, phenylenes, phthalocyanines, cyanines, xanthenes, amidopyrylium dyes, oxazines, quadrain dyes, carbopyronines, NBD derivatives, BODIPY fluorophores, ALEXA fluorophores, lanthanide chelates, metalloporphyrins, NIR fluorophores, rhodol dyes, naphthalimides and porphyrins.

9. The method of claim 7, wherein Q is bound to F by a linker.

10. The method of claim 9, wherein the linker has a chain length of 1-20 atoms.

11. The method of claim 9, wherein the redox indicator can directly accept or release electrons.

12. The method of claim 9, wherein the redox indicator can accept or release electrons via a mediator.

13. The method of claim 9, wherein a reducible or oxidizable substance is detected as the analyte.

14. The method of claim 13, wherein a detection reagent is used that additionally contains an enzyme and optionally a coenzyme for reducing or oxidizing the analyte.

15. The method of claim 13, wherein glucose, lactate, alcohol, galactose, cholesterol, fructose, phenylalanine, alanine, leucine, glycerol, pyruvate or creatinine are detected as analytes.

16. The method of claim 15, wherein glucose is detected using glucose oxidase or glucose dehydrogenase/diaphorase.

17. The method of claim 16, wherein an enzyme catalysing a redox reaction is detected as the analyte.

18. The method of claim 17, wherein an enzyme whose reaction can be coupled to an oxidoreductase reaction is detected as the analyte.

19. The method of claim 18, wherein Q is an acceptor group whose absorption bands in the reduced or oxidized state overlap the emission bands of F.

20. A reagent for detecting an analyte by a redox reaction and a fluorimetric determination comprising a compound of the general formula Q – F as a redox indicator, wherein Q is a quencher group and F is a fluorophore group, and wherein the quencher group Q or/and the fluorophore group F can be reduced or oxidized and the fluorescence can change depending on the reduction or oxidation.

21. The reagent of claim 20, wherein Q is a group that can be reduced or oxidized by the redox reaction.

22. The reagent of claim 21, wherein F is a group that cannot be reduced or oxidized by the redox reaction.

23. The reagent of claim 22, further comprising other components selected from enzymes, coenzymes, auxiliary substances, buffers and mediators.